

Please amend the application as follows:

In the Specification

Please replace the paragraph at page 16, line 13 through page 17, line 2 with the following paragraph:

B1
FIG 1 to FIG 12 illustrate the standard geometry for an MWM sensor and its initial application to fatigue damage measurements. FIG 1 illustrates the basic geometry of the MWM sensor 16, detailed descriptions of which are given in U.S. Pat. Nos. 5,015,951, 5,453,689, and 5,793,206. The sensor includes a meandering primary winding 10 having extended portions for creating the magnetic field and meandering secondary windings 12 within the primary winding for sensing the response. The primary winding is fabricated in a square wave pattern with the dimension of the spatial periodicity termed the spatial wavelength. A current i_1 is applied to the primary winding and a voltage v_2 is measured at the terminals of the secondary windings. The secondary elements are pulled back from the connecting portions of the primary winding to minimize end effect coupling of the magnetic field and a second set of secondary windings can meander on the opposite side of the primary or dummy elements 14 can be placed between the meanders of the primary to maintain the symmetry of the magnetic field, as described in pending application 09/182,693. The magnetic vector potential produced by the current in the primary can be accurately modeled as a Fourier series summation of spatial sinusoids, with the dominant mode having the spatial wavelength. For an MWM-Array, the responses from individual or combinations of the secondary windings can be used to provide a plurality of sense signals for a single primary winding construct as described in U.S. Patent 5,793,206.

Amendments to the specification are indicated in the attached "Marked Up Version of Amendments" (page i).